ActewAGL

Keep your solar system in peak condition.

Producing electricity from your solar panels is not only great for the environment, it can save you a considerable amount on your energy costs.

Like any major purchase, it's important to ensure your solar system is regularly maintained.

Just as you would do with your car, it is essential to carry out regular checks to keep your solar system running at peak performance, and protect against any potential safety risks.

First, be sure to check the front of the inverter at least once a week.

The inverter is the box on the wall near your meter box or inside the garage. This box controls the generation of clean energy for your home.

Checking it will take just a couple of minutes, but could mean the difference between reaping the financial rewards of your clean energy system, and getting an unwelcome surprise when the next bill arrives due to an undetected problem that has interrupted solar generation.

If the inverter is showing an error message, a red light, or nothing at all on the display during daylight hours, contact your solar installer.

Keeping an eye out for obstructions, damage and dirt will also help ensure your solar system is in perfect working order.

While solar systems are very robust, extreme weather, water leaks, foliage—even pests and wildlife—may result in faults or interrupted power generation.

During prolonged dry weather, a thick layer of dust can form, reducing the system's performance.

We don't recommend you climb on the roof to clean the solar panels yourself, and never walk, sit or place objects on their surface.

Instead, if you notice debris around or under the panels, or other visible signs of damage, call out the professionals for a thorough clean. We recommend a quarterly clean for optimal results.

Over the longer term, consider putting in place a formal maintenance timetable, in which a qualified, CEC-accredited electrician can conduct a solar 'health check'.

As a guide, the following should be professionally inspected yearly:

Solar panels	Panels with visual defects should be further inspected for performance and safety to determine if they need to be replaced. Any defective seals and clamps must be replaced.
Wiring installation	Replace any defective seals, clamps and surge arresters. Check connections for tightness and signs of corrosion.
Electrics	Inspect fuses, circuit breakers and residual current devices, earth fault protection systems and isolation devices.
Mounting structures	Check tightness of bolts and other fasteners.

The following should be professionally addressed every five years:

Wiring installation	Check and replace any damaged cables.
Mounting structure	Check for signs of corrosion.

See reverse for your full maintenance guide.

Never attempt to service or open any part of your solar system unless you are a fully qualified electrician, you have been authorised to do so and have properly prepared the site. Don't climb on the roof to clean your solar panels, and never walk, sit or place objects on their surface.

AAR2098

Maintenance procedure and timetable.

Quarterly

Visually check the:

- cleanliness (accumulation of dust, debris, animal waste or nests) around and/or under the solar panel array and inverter.
- damage and/or deterioration of cabling, junction boxes or conduits on or around the array and inverter.
- operation of the system. Refer to your inverter monitoring and original monthly estimate (contained within your system manual) for a guide, and confirm that the system is producing as expected.
- shading or discolouration on any of the panels.

Check the front of the inverter, the white box on the wall near your meter box or inside the garage, at least once a week.

In most circumstances, these checks can be done from the ground. If you're concerned about your solar panels, call a professional to inspect them for you, and don't ever go onto the roof to inspect them yourself.

If necessary:

- Call your solar sales company to confirm the production of your system and to advise them if any new buildings or trees may be impacting your solar generation potential.
- Arrange panel and array cleaning by a qualified professional.
- Schedule a trained arborist to remove any trees or branches that may be shading the array.

Yearly

(in addition to quarterly checks)

To keep your solar system running at its peak, we recommend that you arrange for a CEC-accredited electrician to check your system, yearly.

Your professional inspector will visually check the solar panels and roof top array for:

- signs of panel degradation and visual defects
- structural integrity of the solar panel array, including the strength and fastening of all panel clamps, racking and fixings.

Your professional inspector will visually check the inverter and associated appliances, such as isolators, cabling, junction boxes and conduits, for:

- cleanliness (accumulation of dust, debris, animal waste, nests or webs)
- damage and/or deterioration
- signs of heat stress (your inspector may use an infrared camera to do this).

Your professional inspector will manually check the:

- operation of your system (confirming that the system is producing as expected). This can be done by calculating the kWh produced per kW of panels. For reference, the average for a 1kW solar system in Canberra is approximately 4kWh/ day.
- isolators, circuit breakers, Residual Current Devices (RCDs) and fuses—confirming that they are operating as intended and that connection points are not loose. The system should shut down within two seconds of operating a disconnection device (Main Switch Inverter Supply, External Isolator, Inverter AC Isolator).
- the function of your inverter. It must take at least 60 seconds to start after turning on the disconnection device.
- operation of the earth fault protection system. Does the inverter shut down under fault conditions? If the inverter is connected to the internet, ensure the inverter sends a notification in the event of a fault. If you'd like to test this, we can assist you on **02 6248 3322.**

Every five years

Your professional inspector will:

- visually inspect the mechanical integrity of wiring installation, including conduits. Note that older installations may have been installed under earlier iterations of electrical standards, where HD conduits were not required to protect the DC cable.
- manually inspect all cabling for insulation integrity, including insulation resistance checks on all electrical cables within the system.

If any of these checks fail inspection, the inspector will negotiate with you and your solar sales company to fix the issue as soon as possible.

Never attempt to service or open any part of your solar system unless you are a fully qualified electrician, you have been authorised to do so and have properly prepared the site. Don't climb on the roof to clean your solar panels, and never walk, sit or place objects on their surface.

ActewAGL

ActewAGL Retail ABN 46 221 314 841